FINAL
Coal Creek Management Plan and Environmental Assessment OR135-02-EA-1

Bureau of Land Management
Spokane District, Border Resource Area

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Coal Creek Areas (Lamona/Mohler)

Introduction and Location

This management plan/environmental assessment addresses management for approximately 1,170 acres of public land managed by the Bureau of Land Management (BLM) in the Coal Creek area of eastern Washington (see Map 1). The area is located in Lincoln County, approximately 20 miles northwest of Ritzville and 10 miles east of Odessa. It includes two separate parcels (Lamona and Mohler parcels, Maps 2 & 3) separated by about four miles. Both parcels are within the Upper Crab Creek Management Area (Upper Crab Creek MA) of the Border Resource Area.

Of the 1,170 acres, 710 acres are in the Lamona parcel and 460 acres are in the Mohler parcel. The Lamona parcel includes approximately 270 acres of original public domain lands in T. 22 N., R. 35 E., Section 30; approximately 100 acres in T. 22 N., R. 34 E., Sections 25 and 36, and in T. 22 N., R. 35 E., Section 29 that were acquired by BLM in 1990; and 340 acres in T. 22 N., R. 35 E., Sections 32 and 33 that were acquired by BLM in 1991. The Lamona parcel has about 4 miles of riparian habitat. The Mohler parcel, acquired by BLM in 1991, consists of 460 acres in Sections 13 and 24 of T. 22 N., R. 35 E. with about 1.5 miles of riparian habitat.

Background

The 100 acres in Sections 29, 25 and 36 were grazed prior to BLM acquisition, but have not been grazed since then. The 340 acres in Sections 32 and 33 have not been grazed since acquisition and apparently were not grazed for some time prior to acquisition. The 270 acres in Section 30 have been under a grazing lease (lease #000611) for several decades, but the lessee has not grazed the area since 1990. The Mohler parcel was leased on a temporary, nonrenewable basis within the last decade, but is currently not under a grazing lease.

The Spokane RMP Amendment (BLM 1992) designated the Lamona parcel, totaling 710 acres, as the Coal Creek Area of Critical Environmental Concern (ACEC). Designation of an ACEC is made when special management attention is required to protect specific relevant and important values, or to provide public safety from natural hazards. The relevant and important values for the Coal Creek ACEC include habitat for a special status plant (Washington polemonium), riparian and fish habitat, and cultural resources. The Mohler parcel does not have ACEC or any other special area designation. In 1993, another special status plant (Spalding's catchfly) was discovered on both the Lamona and Mohler parcels.

Purpose and Need

Much of the private land adjacent to Coal Creek is cropland or is planted with non-native pasture grasses, so the two BLM parcels (Lamona and Mohler) are among the small amount of land in the Coal Creek drainage remaining in native vegetation. A major objective of BLM land acquisition along Coal Creek was to enhance wildlife and fisheries habitat, wetland-riparian management, and recreation, as stated in the environmental assessment for the land exchange (EA#130-00-07, Spokane BLM 1990).

The BLM has entered into a Conservation Agreement with the U.S. Fish and Wildlife Service concerning Washington polemonium (BLM 1995). One provision of the agreement is to develop a management plan for the Coal Creek properties. The management plan is needed to establish guidelines that will protect special status plants, as well as other important values of the properties.

The Mohler parcel has values that meet criteria for relevancy and importance specific to ACEC designation (see Affected Environment section). There is a need to protect these values.

Goals and Objectives

The primary goal of this management plan is to protect the ACEC values of the designated ACECs, including recovery of Washington polemonium and Spalding's silene. One objective, in particular, to comply with the Conservation Agreement, is to maintain or establish upward trends in numbers of these special status plants in existing populations, and in numbers of new patches of these plants in suitable habitat.

A secondary goal is to provide for multiple uses, consistent with protecting the ACEC values.

Compliance With Land Use Plans

The proposed action (Alternative 1) is in compliance with the 1992 Spokane RMP Amendment, which specifies (p. 8) that "Specific parcels within the Upper Crab Creek MA that have potential to support diverse riparian associations, wildlife habitat, threatened or endangered species habitat, special recreation areas, and/or significant cultural resources, may be identified for special management." The same page of the RMP amendment specifies that, "The management goal for this area is to enhance native riparian sagebrush steppe habitat, enhance opportunities for wildlife-based recreation, identify and protect significant cultural values and to protect significant sensitive species habitat."

Description of Alternatives

Three alternatives were considered (Proposed Action, No Change, and No Grazing). These alternatives are described individually below. Actions that are common to all alternatives are listed after the individual alternative descriptions.

Alternative 1 - Proposed Action

The proposed action is to identify and implement specific management guidance to protect resource values of the ACEC, including special status plants.

Most of the Lamona parcel (all but 55 acres) and all of the Mohler parcel would be designated as unavailable for livestock grazing, unless prescribed by BLM on a temporary, nonrenewable basis to enhance natural resource values. If prescribed grazing is permitted, plant community condition and special status plant species would be monitored, and comparisons made with

adjacent ungrazed areas, as provided in the Conservation Agreement for Washington polemonium. Neither permitted use or grazing preference would be granted for these areas.

Grazing lease #000611 would be reduced from 32 Animal Unit Months (AUMs) to 9 AUMs per year, and also be modified to designate the 55 acres in the Lamona parcel in Section 30 north of State Highway 28 as available for leasing for livestock grazing. This would require the lessee to relinquish his grazing lease for all but 55 acres of Section 30. This 55 acres is fenced in with 30 acres of private land. Neither Washington polemonium nor Spalding's catchfly occur north of the highway, where this fenced area is located.

Monitoring and evaluation of grazing use would be done in accordance with the Spokane District Monitoring Plan.

Also see below for a list of "Actions Common to All Alternatives."

Alternative 2 - No Change

Grazing lease #000611 would continue to be authorized, allowing 32 AUMs per year for early spring grazing (two months, March 15 - May 14) on 280 acres in Section 30 (Lamona Parcel 1). Grazing use would be monitored and evaluated in accordance with the Spokane District Monitoring Plan.

Also see below for a list of "Actions Common to All Alternatives."

Alternative 3 - No Grazing

Under this Alternative, both the Lamona and Mohler parcels would be unavailable for grazing. Grazing lease #000611 would be canceled.

Also see below for a list of "Actions Common to All Alternatives."

Actions Common to All Alternatives

- Pursue ACEC designation of the 460-acre Mohler parcel through the RMP amendment or revision process. In the interim, manage the Mohler parcel under special area management guidelines, as authorized under the 1992 Proposed Spokane Resource Management Plan Amendment Final Environmental Impact Statement (p. 8) to protect special status plants.

- Continue weed control measures, as needed, particularly in the riparian zone where Washington polemonium occurs, in accordance with the Spokane District Noxious Weed Control Environmental Assessments (EA#OR130-03-03, BLM 1993 and EA#OR130-06-01, 1996) and any subsequent updates. To reduce potential for herbicide damage to special status plants and other natural vegetation, weed control actions will include consultation with a botanist regarding timing of treatments and location of special status plant populations, and will be implemented by persons familiar with those plants.

- Continue to allow dispersed recreational use (such as hunting, hiking, horseback riding, photography, etc.), contingent on such activities being monitored and not exhibiting any adverse impacts to important resource values on the parcels.

- Restrict vehicles to existing roads, except as required for administrative purposes, or as otherwise authorized.

- Locate or design any utility systems or other rights-of-way to prevent adversely affecting special status plant species and other resource values pertinent to the ACEC designation.

- Restrict any oil and gas leasing to no surface occupancy and place other stipulations limiting any surface-disturbing activities to existing BLM roads until botanical and other field inventories and evaluations confirm that there would be no adverse impacts to special status plant species or the management plan goals for the ACEC. Standard stipulations could also require relocation of operations (up to 200 meters) and seasonal restrictions (up to 60 days/year) if needed to avoid or minimize impacts.

- Authorization of mining would be subject to the following: (1) an inventory and evaluation confirming mining would not adversely impact important botanical, riparian, wildlife or other resource values of the ACEC, (2) the design of any proposed mining and reclamation plan adequately protecting riparian values and water quality, and (3) limiting any expansion to the smallest possible area to minimize conflicts with ACEC management.

- Site-specific environmental analysis would be done for ground-disturbing projects proposed within the Lamona and Mohler parcels, with the intent of designing and implementing projects that avoid impact to important resource values, particularly those pertinent to ACEC designation.

Affected Environment and Environmental Consequences

ACEC Values on Mohler Parcel

The Mohler parcel includes high quality representative examples of two plant communities: threetip sagebrush/Idaho fescue community and big sagebrush/Idaho fescue community. Two special status plant species, Spalding's silene (listed as Threatened by the U.S. Fish and Wildlife Service, and by the state of Washington) and Washington polemonium (federal Species of Concern; Threatened species in Washington) occur on the parcel. The parcel also has relevant and important values for riparian and fish habitat in Coal Creek, as well as upland wildlife habitat.

Soils/Water Resources/Air Quality

Soils*:* There are three predominant soils within the Coal Creek (Lamona/Mohler) parcels, described as follows:

- Esquatzel silt loam: very deep, well drained, moderate permeability, very low erosion hazard.
- Pedigo silt loam: very deep, somewhat poorly drained, moderate permeability, very low erosion hazard.
- Roloff-Bakeoven-Rock: outcrop complex, 0 to 15 percent slopes; moderately deep to very shallow, well drained, moderate to moderately slow permeability, slight to high erosion hazard.

Impacts to Soils: Under natural conditions, lands in Lincoln County have slight to moderate erosion susceptibility. Under Alternative 1 (Proposed Action), some soil compaction and displacement could occur on 55 acres from livestock activities, resulting in reduction of soil stability, soil productivity and plant vigor. Effects under Alternative 2 would be similar, but would take place on up to 280 acres. Under all alternatives, including the No Grazing, some soil disturbance would occur as a result of wildlife use of the area.

Water Resources: Coal Creek, a perennial stream that drains into Crab Creek, flows through both the Lamona and Mohler parcels (Map 1). Coal Creek is classified by the State of Washington as a Class B surface water. Water quality monitoring of Coal Creek at Mohler and Lamona has been conducted twice yearly since 1988, and the most recent data, from summer 2001, indicate that it meets or exceeds water quality standards for a Class B surface water. The Mohler parcel has several shallow seasonal ponds.

Impacts to Water Resources: None of the actions under any of the three alternatives are expected to adversely impact water resources.

Riparian and Fisheries/Wildlife Habitat

There are approximately 33 acres of streamside riparian habitat and 2.5 acres of pond habitat within the parcels. The amount of streamside habitat in Proper Functioning Condition (PFC) increased from approximately 61 percent (20 acres) in 1995, to 100 percent in 2001, apparently in response to the extended period of rest from grazing following BLM acquisition. Riparian vegetation is recovering as evidenced by an increase in streamside shrub cover and greater bank stability. Riparian shrubs had also been damaged by aerial spraying of herbicides prior to BLM acquisition. Under BLM management, weed control measures on these parcels have focused on backpack spraying and localized treatment in areas where Washington polemonium is present, enabling substantial progress in weed control while protecting native vegetation.

Both parcels include riparian habitat and associated upland shrub-steppe habitat that support a variety of wildlife species. Wildlife associated with riparian habitat include mallard, cinnamon teal, widgeon, great blue heron, belted kingfisher, several migratory landbirds, beaver, muskrat, spotted frog, and northern long-toed salamander. The creek supports a small trout population with several spawning areas within the ACEC.

Upland habitats support cottontail rabbit, yellow-bellied marmot, badger, ground squirrel, rattlesnake, and gopher snake. Gray partridge, pheasant, great horned owl, hawks (Swainson's, ferruginous, and red-tailed), and other landbirds are also found in the uplands. White-tailed and mule deer utilize both riparian and upland habitats. Records indicate that the parcels contain historic habitat for both the sharp-tailed and sage grouse (State Threatened species), white-tailed jackrabbit (State Monitor) foraging/breeding, and ferruginous hawk (Federal Species of Concern) and Swainson's hawk (State Monitor) nesting activity. In addition, burrowing owl (Federal Species of Concern) nesting activity occurs within one mile of the parcels.

Impacts to Riparian and Fisheries/Wildlife Habitat: Grazing could result in increased weed spread and consumption or trampling of important forage/escape and brood-rearing cover, potentially leading to a decrease in overall diversity and density of wildlife species utilizing the area. Spring grazing could result in trampling or loss of cover for nesting/brood-rearing sites for waterfowl, amphibians and nesting migratory landbirds. Alternative 1 could have such effects on 55 acres, but not within any riparian areas. If the grazing lessee exercised the current lease to its authorized extent, Alternative 2 could have similar effects on up to 280 acres, including the Coal Creek riparian corridor. Monitoring and controlling grazing use would minimize the likelihood for these impacts to occur. Under both Alternatives 1 and 2, given these factors, important fish and wildlife species habitat would be maintained and riparian habitat would continue to be in Proper Functioning Condition (PFC).

Botany

Vegetation: The Lamona and Mohler parcels include about 5 miles of Coal Creek and its surrounding uplands, within Daubenmire's threetip sagebrush/Idaho fescue zone. Threetip sagebrush/Idaho fescue occurs on north-facing slopes south of the creek; big sagebrush/Idaho fescue also occurs on the allotment. A minor community is stiff sagebrush/Sandberg's bluegrass, found on shallow soils. The riparian communities along Coal Creek are primarily herbaceous, but shrubs are becoming established at a number of locations along the creek.

Both parcels contain high quality examples of the threetip sage/Idaho fescue plant community. The Washington Natural Heritage Program had designated this community as a Priority 2 (intermediate in need for protection) in the Natural Heritage Plan at the time that the ACEC was established; the latest edition of the Plan (1999) designates it as Priority 3, since it is represented in several recently established preserves. However, representation on Federal and state lands outside the nature preserve system continues to be important in maintaining natural plant communities. The big sagebrush/Idaho fescue plant community (WNHP Priority 3) is also represented at both Lamona and Mohler.

A number of plants that have traditional uses among native Americans are found on the two parcels. Berry-producing plants, including serviceberry (*Amelanchier alnifolia*), choke cherry (*Prunus virginiana*), golden currant (*Ribes aureum*), wax currant (*Ribes cereum*), elderberry (*Sambucus cerulea*), and Wood's rose (*Rosa woodsii*), occur along the creek and in the vicinity of rock outcrops. Culturally important root crop plants include bigseed lomatium (*Lomatium macrocarpum*) and bitterroot (*Lewisia rediviva*) on shallow soil areas, and nineleaf lomatium (*Lomatium triternatum*) in meadows and gently sloping grasslands.

Site-specific weed control procedures applied during the past five years have resulted in near elimination of noxious weeds in the vicinity of existing Washington polemonium patches, and a substantial reduction in populations of noxious weeds on the parcel as a whole.

Impacts to Vegetation: Under Alternative 1, the 55 acres subject to grazing could experience some reduction in native grass cover and increased presence of non-native weeds, if the grazing lease is activated. Under Alternative 2, similar effects could occur on up to 280 acres, and recovery of woody riparian vegetation could be inhibited; spring grazing would be less detrimental to riparian vegetation than summer grazing. Monitoring and controlling grazing use would minimize the likelihood for these impacts to occur.

Special Status Plant Species: Spalding's catchfly (*Silene spaldingii*), a plant that is federally listed as Threatened under the Endangered Species Act and a state Threatened species, is an endemic plant that occurs in Lincoln, Spokane, and Whitman counties, as well as parts of neighboring states. It is a non-rhizomatous perennial species with annual shoots that appear in late May or June, flower in July and August, and die back in August or September. Individual plants can remain dormant during one or more growing seasons and reappear in a later year (Lesica and Steele 1994, Lesica 1997). This species is found on gently to steeply sloping sites, usually with a north-facing aspect, that are dominated by Idaho fescue. Threetip sagebrush is often present also. This species occurs on north-facing slopes in both the Lamona parcel and the Mohler parcel. All of the known sites are south of the railroad tracks and the creek. Surveys in the fall of 1993 located over 500 plants on the Lamona parcel (one of the largest known populations in Washington) and approximately 100 on Mohler.

Washington polemonium (*Polemonium pectinatum*), a state Threatened species and Bureau Sensitive species, is an endemic perennial that occurs only in Lincoln, Adams, Whitman and Spokane counties in Washington. It produces annual shoots from a subterranean crown; shoots emerge in March or April, flowering occurs during May and June, and the shoots begin to die back shortly thereafter. Removal of shoot tips by grazing/browsing animals is occasionally observed; one instance occurred in a pasture with no domestic livestock, so was apparently attributable to wildlife, and another instance occurred in a pasture grazed by horses. Because Washington polemonium occurs in moist swales and stream terraces, invasion by noxious weeds such as Canada thistle and Russian knapweed is a threat to populations of this species. Washington polemonium occurs in both the Lamona and Mohler parcels. There are several thousand plants of Washington polemonium on the Lamona parcel, making it the largest reported population of the species in existence, and over 1,000 plants on Mohler.

Impacts to Special Status Plant Species: The 55 acres available for grazing under Alternative 1 do not support either Spalding's catchfly or Washington polemonium. The absence of grazing on the remainder of the two parcels would be expected to result in more dense plant growth, but could reduce the availability of sites for seed germination and seedling growth by allowing accumulation of grass litter. Lesica (1999) found that dense litter reduced the likelihood of seedling establishment in Spalding's catchfly in Montana. However, Idaho fescue, the predominant grass species associated with Spalding's catchfly in the project area, produces less litter than the rough fescue associated with the Montana populations, so litter accumulation may not be as much of an issue in eastern Washington populations. Consumption and trampling of

special status plants by livestock would not occur under Alternative 1 since the subject plants are not within the area available for grazing, so no impacts are expected to occur.

Under Alternative 2, livestock grazing in the vicinity of Spalding's catchfly and Washington polemonium could occur on up to 280 acres if the lessee exercised his lease to its authorized extent. Direct effects, such as consumption and trampling, on Spalding's catchfly would be unlikely, because the plant emerges in late May or June, so grazing would occur primarily during periods when the plant is dormant. Livestock might be present at the time when shoots are first emerging, but they are unlikely to concentrate their activities on the steep slopes where Spalding's catchfly grows. The plants (other than the rosettes) are covered with glandular hairs and are very sticky, and thereby probably not attractive as forage, but they could be consumed incidentally if cattle are eating neighboring vegetation. Direct effects on Washington polemonium could occur, since its period of growth and flowering coincides with the lessee's season of use, and it grows in the riparian zone and in upland swales within flat or gently sloping terrain. Grazing could also have indirect effects such as soil compaction and damage to soil surface crusts, which could alter water percolation patterns, reduce vigor of other native species, and increase the likelihood of invasion by non-native plants that could compete with the natives. Monitoring and controlling grazing use would minimize the likelihood for these impacts to occur.

Under Alternative 3, no livestock would be present on the parcels, so no direct or indirect effects of livestock grazing would occur.

Cultural/Paleontological Resources

Cultural resource inventory conducted on the Lamona parcel in 1991 located sites associated with Native American habitation and a camp associated with construction and maintenance of a portion of the Burlington Northern Railway, which bisects portions of the Lamona and Mohler parcels. The sites are potentially eligible for the National Register of Historic Places. Consultation was initiated with the Colville Confederated Tribes, Spokane Tribe and the Office of Archaeology and Historic Preservation. Neither sacred sites nor traditional cultural properties were identified in the project area. The native vegetation includes a number of plants used by Native American peoples for food and medicine.

Impacts to Cultural Resources: Under Alternative 1, the Lamona 55-acre portion available for grazing could experience a reduction in plants available for Native American use if the grazing lease were exercised. Spring grazing could remove above-ground plant parts, making it more difficult to identify and locate plants of cultural significance. Under Alternative 2, similar effects could occur on up to 280 acres, and archaeological sites would continue to be subject to surface disturbance by grazing. Applying the criteria for stubble height and woody vegetation condition would reduce the amount of site erosion, likewise reducing the potential for impacting cultural resources. For both alternatives 1 and 2, monitoring and controlling grazing use would minimize the likelihood for these impacts to occur. Under Alternative 3, which does not provide for domestic livestock grazing on either parcel, archaeological site disturbance would be reduced. However, under Alternative 3, the long-term effect on Native American traditional plants would be uncertain, because competitive relationships among the plant species inhabiting the area are not well characterized.

Paleontological Resources: No paleontological deposits are known to occur in the project area, and the geological history of the area makes such occurrence unlikely. Therefore, none of the identified alternatives are expected to impact paleontological resources.

Recreation

Upland bird hunting is the primary public use of these parcels.

Impacts to Recreation: Under Alternatives 1 and 2, recreational users (such as photographers and hikers) could be discouraged in the spring months from using areas being grazed (55 acres in Alternative 1 and up to 280 acres in Alternative 2). Because grazing would not be occurring during the hunting season, any effects to bird hunters would be indirect (such as reduced cover available for birds). Under Alternative 3, recreational use is not expected to be impacted.

Socioeconomic

The grazing lessee of the Lamona parcel would experience a decrease from 32 to 9 AUMs of grazing. However, the lessee has not found it economical to make grazing use of this parcel under current management. The lessee's private base property for his grazing lease could lose some slight value, as the BLM permitted AUMs attached to the base property would be reduced from 32 to 9.

Mineral Resources

The 1992 Spokane RMP Amendment identified the Coal Creek area as having moderate potential for gas and oil. The other primary mineral resources on the parcel are stone, sand and gravel. An existing State Department of Transportation pit adjoins the parcel on the north, and there is potential for a future proposal for expansion onto public lands.

Impacts to Mineral Resources: None of the alternatives are expected to conflict substantially with future mineral use of the area.

Access

There is no legal public access across the Burlington Northern railroad right-of-way in the Lamona parcel south of the railroad.

Reasonable foreseeable uses that could be proposed on Coal Creek include various transportation corridors for buried cable, power poles, or a road.

Impacts to Access: None of the alternatives are expected to affect or change access to the project area.

Other Resource Values or Elements Considered

Air Quality: Air quality within Upper Crab Creek watershed is generally high. None of the alternatives are expected to impact air quality.

Environmental Justice: No disproportionately high and adverse human health or environmental effects on minority or low-income populations are expected to result from implementation of any of the alternatives addressed in this EA.

Other Resource Elements Considered: Other resource values or elements considered in analyzing the alternatives included:
- Wild and scenic rivers
- Prime/unique farmlands
- Wilderness
- Hazardous/solid materials

None of the values listed above are present on the Coal Creek BLM-administered lands.

Cumulative Impacts

In much of the Columbia Basin region of Washington, native shrub-steppe and grasslands have been converted to intensive agriculture such as grain farming and irrigated pastures. Livestock grazing is the primary land use in areas too steep or rocky for crop growth, and those rangelands have been degraded by long grazing seasons and/or high livestock numbers. These activities have reduced the availability of suitable habitat for Spalding's catchfly and Washington polemonium. The presence of non-native weedy plants on neighboring lands and the use of chemical herbicides to control those invasive plants also represent a potential threat to special status species and other native plants. As suitable habitat becomes reduced to smaller, scattered patches, opportunities for crossbreeding between populations at different sites are also reduced. For many plant species, this exchange of genes between populations is important for maintaining plant vigor. In Spalding's silene, inbreeding can result in lower seed production, reduced germination, and reduced seedling growth and survival (Lesica 1993).

The Upper Crab Creek watershed, which includes Coal Creek, includes the majority of known habitat for both Spalding's catchfly and Washington polemonium in Washington. During the past decade, the Spokane BLM District has acquired over 50,000 acres of land in the watershed, enhancing opportunities for protection of these species through appropriate management. The Lamona and Mohler parcels are the only non-private lands through which Coal Creek flows, so they represent a unique opportunity for habitat enhancement along 5.5 miles of the creek.

Consultation/Coordination With Other Agencies, Groups and Individuals

This management plan and environmental assessment was prepared by an interdisciplinary team of BLM resource specialists representing various resource values, including soils, hydrology (water), wildlife habitat, botany, recreation, and cultural values (see EA cover page).

The EA was reviewed and coordinated with the following:
- Gary Holman, the affected grazing lessee on Allotment #000611.

- Washington Department of Transportation, regarding the gravel pit adjacent to the Lamona parcel.
- U.S. Department of Fish and Wildlife, a cooperator with BLM on the Conservation Agreement for Washington polemonium

Consultation was initiated with the following:
- The Honorable Colleen Cawston, Chair, Confederated Tribes of the Colville Reservation
- The Honorable Bruce Wynne, Chair, Spokane Tribe of Indians
- Dr. Robert Whitlam, State Archaeologist, Washington State Office of Archaeology and Historic Preservation

In addition, the Coal Creek Management Plan/EA is being made available for public review at the Spokane BLM office, as well as libraries in Odessa, Harrington, Reardon, and Davenport. A news release announcing availability of the document for public review was distributed on January 17, 2002.

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